



***Biological Assessment for Interstate 25 Improvements
between Woodmen Road and State Highway 105
in El Paso County, Colorado***



Photos by U.S. Fish and Wildlife Service

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Taking care to get you there

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1.0 INTRODUCTION

The Colorado Department of Transportation (CDOT) has prepared this biological assessment (BA) to address the effects to sensitive species resulting from proposed improvements on Interstate 25 (I-25) between Woodmen Road (Exit 149) and State Highway (SH) 105 in Monument (Exit 161). This project is considered the second phase of the Proposed Action from the approved 2004 I-25 Improvements Project Environmental Assessment (EA) and will be referred to as Phase II throughout this document.

A Programmatic BA prepared for this project in 2003 (for the 2004 EA) indicated that the only threatened or endangered species affected by the I-25 Proposed Action would be the federally threatened Preble's meadow jumping mouse (*Zapus hudsonius preblei*). **Figure 1** shows the location of the proposed project improvements and the habitat occupied by Preble's meadow jumping mouse in this corridor. Preble's meadow jumping mouse will be referred to as Preble's throughout this document.

In addition to evaluating project impacts to the Preble's, this BA addresses project impacts to the Gunnison's prairie dog (*Cynomys gunnisoni*), which was designated as a federal candidate species by the U.S. Fish and Wildlife Service (USFWS) in 2008. This species is found at several locations within the Phase II improvements area. There is a cluster of colonies at the Northgate Interchange and the other colonies are located on the east and west sides of I-25 north of the Interchange. These prairie dogs were found along I-25 in 2002, but since then their species status has changed and their colonies have changed in size and number.

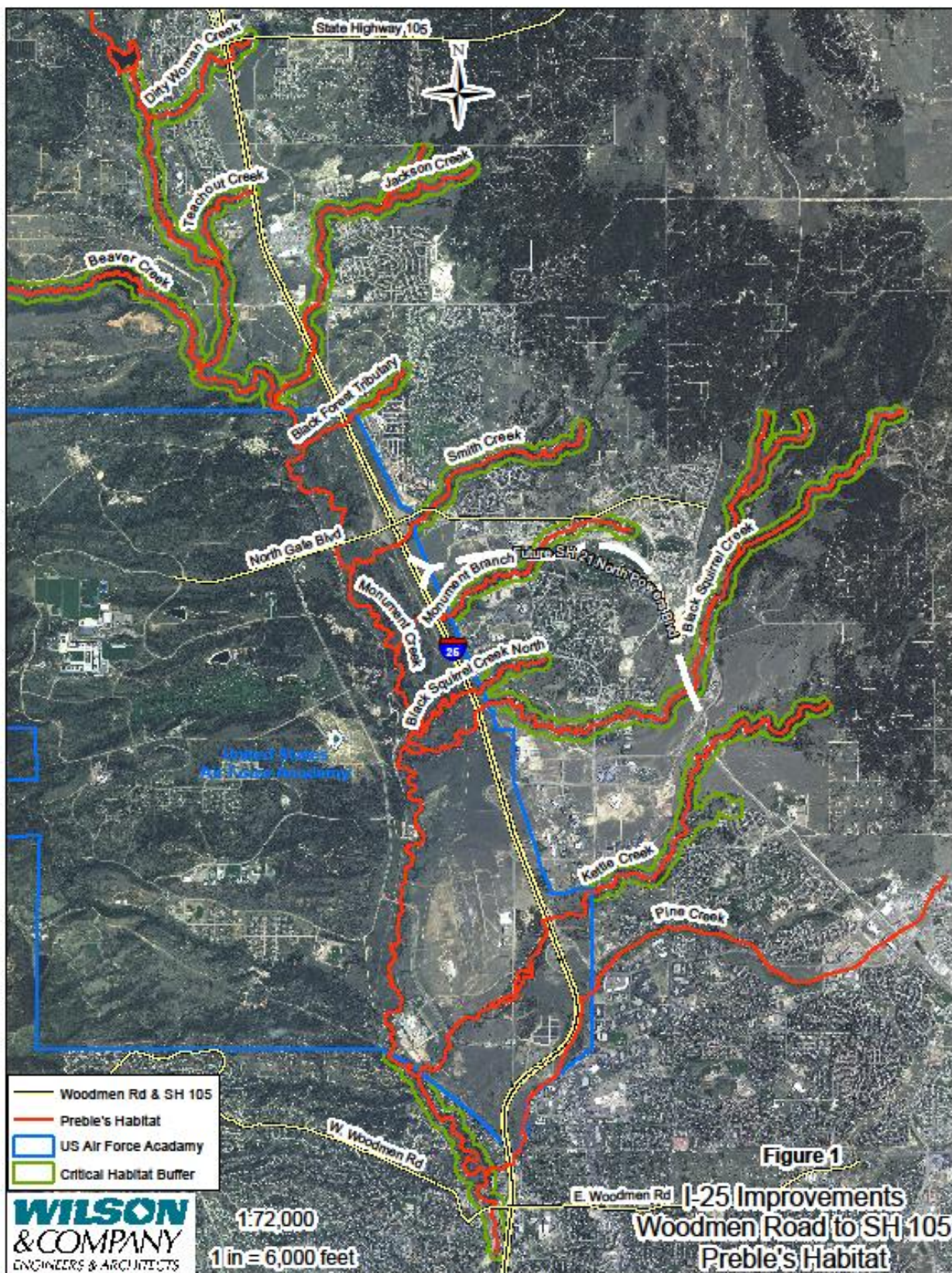
1.1 Background

This proposed project was covered in the 2004 I-25 EA that addressed widening of I-25 between South Academy Boulevard (Exit 135) and SH 105, as well as reconstruction of interchanges within this corridor. As part of the I-25 EA, CDOT prepared a programmatic BA that documented existing conditions and impacts of the Proposed Action. The BA identified long-term mitigation efforts to be implemented as projects were developed in the I-25 corridor. The BA also identified impacts and mitigation for two other projects in northern El Paso County: replacement of the SH83/Shoup Road intersection; and construction of a new freeway called Powers Boulevard (now SH 21) from Woodmen Road to I-25.

The USFWS issued a Programmatic Biological Opinion (BO; Service File No. ES/LK-6-CO-03-F-021) on August 4, 2003 that ratified CDOT's BA findings and finalized mitigation commitments. The programmatic BO specified that project-specific BAs would be prepared as individual construction projects were developed in the future.

In December 2010, the USFWS revised the critical habitat designation for Preble's in seven Colorado counties. This revision included streams in the Monument Creek watershed that have been designated critical habitat. Streams within the critical habitat designation were given larger buffers to protect riparian and adjacent uplands used by Preble's. Preble's habitat in El Paso

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County was selected for critical habitat designation because it represents the southern extent of the species range and contains the largest populations in the Arkansas River drainage.

The 2003 Programmatic BO included a Reinitiation Notice indicating that, “As required by 50 CFR 402.16, reinitiation of formal consultation is required if ... (4) a new species is listed or critical habitat designated that may be affected by the action.” Thus, the December 2010 Preble’s critical habitat designation triggered the requirement to reinitiate formal consultation with regard to the upcoming I-25 improvements. Pending development of a new, project-specific BO for Phase II, CDOT is continuing to implement the mitigation commitments identified in the 2003 programmatic BO. Many of these commitments have already been implemented and are considered advance mitigation for this I-25 project.

The 2010 critical habitat designation exempted streams within the boundaries of the United States Air Force Academy (USAFA). I-25 was built on an easement from USAFA from approximately milepost 149.3 to milepost 157, a distance of about seven miles. This USAFA section represents more than half of the project length and contains several streams with Preble’s habitat, as well as some of the Gunnison’s prairie dog colonies. Accordingly, this BA was developed in close coordination with USAFA staff, through USFWS liaison Dr. Brian Muhlbachler.

1.2 Project Description

Phase II of the I-25 improvements will widen the highway to six lanes from Woodmen Road to SH 115. The first phase of the I-25 Projects (called the COSMIX project) was completed in 2007 and resulted in 12 miles of six-lane highway from South Circle Drive (Exit 138) to North Academy Boulevard (Exit 150). Other improvements completed in the first phase included major reconstruction at several interchanges.

Phase II of the I-25 improvements is being considered in the 2012 I-25 EA re-evaluation process. The EA re-evaluation process identifies changes in existing conditions and potential impacts to resources that have occurred since the completion of the 2004 I-25 EA. Phase II of the I-25 improvements will be delivered as a design/build project.

The addition of highway lanes on I-25 between Woodmen Road and SH 105 will result in permanent and temporary impacts to Preble’s habitat. Permanent impacts to habitat will result from improvements outside the highway pavement and work within the median. No improvements will be completed outside of the highway right-of-way. The construction footprint will include a 20-foot-wide area within the median and 20 feet in each direction off the existing roadway.

Storm drainage improvements will also be included in this second phase and consist of stormwater vaults that will transport runoff through a pipe to be released via an outfall. The outfall would be located in an area already identified as being permanently impacted. The stormwater pipe will be buried from the vault to the runoff release point at the outfall. The stormwater improvements will be sited within 15 feet of the edge of pavement in an area regularly mowed and classified as non-habitat for Preble’s. Therefore, the stormwater improvements will not result in impacts to Preble’s habitat.

During construction, erosion and sediment control best management practices will be installed as identified in the project’s stormwater construction management plan.

2.0 PREBLE'S HABITAT CONDITIONS IN PROJECT AREA

The population of Preble's found in El Paso County is the southern boundary for the species range along the Front Range of Colorado. This population occurs along Monument Creek and its tributaries. Several of these tributaries cross the I-25 Phase II Project corridor and will be impacted by proposed project activities.

Habitat favored by Preble's consists of riparian vegetation communities with adjoining uplands (Shenk and Sivert 1998). Along the Front Range, the riparian vegetation favored by the species includes shrubs with some tree overstory, and a good cover of grasses and herbaceous plants. Generally, the thicker riparian vegetation provides a higher probability of sustaining larger populations of Preble's. Riparian habitat is used for nesting, feeding, hibernation, and as dispersal corridors.

Upland habitats that provide good habitat include thick stands of taller grasses with scattered patches of shrubs. This habitat is used for foraging and shrubs located in the uplands are used for hibernation.

Tributaries of Monument Creek affected by the I-25 Phase II Project originate as headwater streams in the Black Forest. Generally, as these streams flow west toward Monument Creek, the riparian vegetation community is larger and sustains larger populations of Preble's. The occupied streams typically have suitable riparian habitat from their confluence with Monument Creek and quality habitat continues for one to three miles upstream (Ensign Technical Services 2003).

3.0 IMPACTS TO PREBLE'S HABITAT AND POPULATIONS

The USFWS designated Preble's critical habitat in El Paso County in 2010. Critical habitat expansions of the protective buffers on streams have been considered in this BA through a quantitative assessment of Phase II improvements impacts.

The following streams designated as critical habitat cross the I-25 Phase II Project Area and their new protective buffers are as follows:

- Jackson Creek- Critical habitat extends 361 feet out from the edge of each stream bank.
- Teachout Creek- Critical habitat extends 361 feet out from the edge of each stream.

Streams that cross the I-25 Phase II Project Area within the USAFA boundaries are exempted from critical habitat designation and maintain a 300 feet buffer out from the 100-year floodplain as defined in the Programmatic BO except when described below. The following streams flow under I-25 within the USAFA boundaries and are exempted from the expanded critical habitat buffers:

- Kettle Creek
- Pine Creek
- Black Squirrel Creek South (360 feet) and North
- Monument Branch
- Smith Creek
- Black Forest Tributary (called "unnamed" in USFWS Critical Habitat notice)

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3.1 Methodology to Determine Impacts

This BA will use the temporary and permanent impacts to USAFA Preble's habitat identified in the I-25 Programmatic BA. Since these streams are not included in the critical habitat designation, the protective buffers will not have changed and the impacts will remain the same. The Preble's impacts identified in the programmatic BA were calculated from the 30 percent design plans and the impacts were estimated as a worst case scenario (Ensign Technical Services, 2003).

Streams now classified as critical habitat within the project area have had their temporary and permanent impacts to habitat revised based on the larger buffer areas. The USFWS critical habitat boundary shapefiles for El Paso County streams were used to calculate the impacts to habitat along these streams. The critical habitat stream boundaries were converted from GIS to CAD and were overlaid on the 30 percent design plans to determine the temporary and permanent impacts.

Several areas within designated habitat were classified as non-habitat primarily because they were highly disturbed. The following areas were classified as non-habitat:

- I-25 highway shoulders within 15 feet of pavement are eliminated as they are regularly mowed.
- All paved or dirt roads.
- Most highway medians; with the exception being the median in the Northgate area that contains habitat.
- All currently paved areas within habitat zones.

3.2 Project Descriptions and Specific Habitat Impacts

This section identifies the Preble's habitat impacts that will occur as the result of the Phase II improvements. Preble's habitat impacts are addressed starting from the southern end of the project going north to the project terminus at SH 105. Figures showing the permanent and temporary impacts at each stream are located in Appendix A.

Pine Creek

Preble's habitat adjacent to Pine Creek will be impacted by the Phase II improvements planned north of Academy Boulevard. At this location, Pine Creek is immediately adjacent to and east of the northbound I-25 lanes. Preble's habitat along Pine Creek south of Academy Boulevard will not be impacted by the project because the stream is approximately 700 feet from the roadway.

Habitat impacts north of Academy Boulevard will occur adjacent to the northbound lanes. At this location two lanes will be added in each direction and outside shoulder widening will occur on the west side of the highway. No suitable Preble's habitat occurs on the west side of I-25 or within the median (Ensign Technical Services 2003).

At the Pine Creek location, Preble's habitat ends at the 15-foot-wide mowing strip adjacent to the east edge of the I-25 pavement. The disturbance to habitat at this location will be a temporary construction impact since the area will be revegetated with native plants and will be maintained as habitat. A total of 3.3 acres of temporary impacts will occur in this location as a result of Phase II improvements. Widening is also estimated to increase the habitat area by 0.2 acre because the east edge of the new highway pavement will be constructed at the existing edge of pavement or shifted to the west and open up a previously paved area that will be revegetated.

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Kettle Creek

Kettle Creek flows underneath I-25 through a 108-inch diameter pipe that is approximately one-half mile long. The pipe is an outlet for the Kettle Creek Dam that is located on USAFA property.

Improvements to I-25 at this location include the addition of one lane in each direction and the shoulders will be constructed in the open median with some additional widening on the east side. The highway embankment slopes will also be improved at this location because of safety.

Since Kettle Creek flows through USAFA property, it has a habitat buffer of 300 feet from the 100-year floodplain. This habitat ends on both sides of the highway at the edge of the 15-foot-wide mowing strip. Permanent impacts to this habitat will include the area from the edge of the existing mowing strip to the edge of the 15-foot-wide mowing strip adjacent to the new highway. Preble's habitat will be reduced by 0.1 acre at Kettle Creek. The other habitat disturbance resulting from construction of the roadway is a temporary impact because the area will be revegetated with native plantings and maintained as native vegetation. Temporary impacts resulting from the construction of the new highway in this area is 0.4 acre.

As part of the required mitigation, a new culvert to create a habitat linkage on the north side of the dam will also be installed at this location. A figure showing the design of this culvert is located in Appendix B.

Black Squirrel Creek South

Black Squirrel Creek crosses I-25 through a divided median north of Interquest Parkway. The highway crosses the stream via a three span bridge on both the northbound and southbound lanes. Highway improvements at this location include an additional lane in each direction with the shoulders to be constructed at the outside of the southbound and northbound lanes.

This stream crossing is on USAFA property and the Programmatic BO identified 360 feet from the edge of the stream as the buffer. At the time the BO was published this stream was calculated as critical habitat and this BA documented those impacts for Phase II improvements. Existing habitat ends on both sides of the highway at the 15-foot-wide mowing strip adjacent to the edge of the pavement. The area of permanent habitat impact will be the area between the edges of the existing highway mowing strip to the edges of the new highway 15-foot-wide mowing strips. The permanent impacts at this location will be 1.2 acres. Disturbed habitat from construction is a temporary impact because it will be revegetated with native plantings and maintained as native vegetation. Temporary impacts at this location will be 2.1 acres.

Black Squirrel Creek North

Black Squirrel Creek North crosses I-25 approximately 1,000 feet north of Black Squirrel Creek South. The USFWS Critical Habitat notice refers to this stream as an unnamed tributary. The highway will be widened from two to three lanes in each direction at this stream.

This stream is also located on USAFA property, so the habitat area is 300 feet from the 100-year floodplain. The permanent impact resulting from the highway widening and extension/rehabilitation of the hydraulic structures is one acre. The additional disturbed areas needed during construction will be temporary impacts because they will be revegetated with native plantings and maintained as native vegetation. Temporary impacts at this location are 3.1 acres.

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Monument Branch

Interstate I-25 in the vicinity of Monument Branch will be widened from two to three lanes in each direction. At both the I-25 northbound and southbound Monument Branch locations there are two 10-foot by 12-foot concrete box culverts (CBC). These structures will be extended, the northbound on the east to accommodate paving, and the southbound on the west end to accommodate pavement widening. In addition, there is an existing 6-foot by 7-foot concrete CBC located on northbound I-25 approximately 1,050 feet north of Monument Creek. This will be extended on the east side and will also impact Preble's habitat.

The Monument Branch is located on USAFA property, so designated habitat is 300 feet from the 100-year floodplain. Permanent impacts to this habitat will result from the highway widening, roadway fill/cuts, and CBC widening at the Monument Branch. The permanent impacts resulting from these roadway improvements will be 3.5 acres. Temporary construction impacts at this location will be 6.1 acres.

Smith Creek

Smith Creek crosses I-25 approximately 900 feet south of Northgate Boulevard. The highway improvements at this location will include I-25 widening and reconstruction. In addition to the highway improvements, two large CBC structures located at Smith Creek will be extended to accommodate roadway widening at these areas.

Smith Creek is located on USAFA property, so Preble's habitat extends up to 300 feet from the 100-year floodplain. Permanent impacts will occur from the edge of the existing highway mowing strip to the edge the new 15 foot roadway mowing strip. Permanent impacts due to highway widening, road fill/cuts, and CBC structure widening is 0.38 acre. Additional disturbed area will be temporary impacts because they will be revegetated with native plants and maintained as native vegetation. Temporary impacts resulting from construction activities are 2.23 acres.

Black Forest Tributary

The proposed improvements to I-25 at Black Forest Tributary include widening from two to three lanes in both directions. Highway widening at this location will occur outside of the existing pavement and the existing pavement will be reconstructed. In addition, two existing 10-foot by 10-foot CBCs at Black Forest Tributary will require extensions in both directions.

This creek is located on USAFA property, so Preble's habitat extends up to 300 feet from the 100-year floodplain. The USFWS Critical Habitat notice refers to this creek as an unnamed tributary. The permanent impacts resulting from pavement widening, roadway fill/cuts, and the extensions of the two CBCs will be 0.3 acre. The temporary impacts resulting from construction are one acre and this area will be revegetated with native plantings.

Jackson Creek

Jackson Creek crosses I-25 through a 29-foot by 18-foot CBC with a natural bottom. The highway improvements at this location include widening from two to three lanes in each direction.

Jackson Creek has been designated critical habitat at a distance of 361 feet from the edge of stream. Permanent impacts to this habitat will occur from the edge the current road mowing strip to the edge of the new roadway 15 foot mowing strip. Permanent impacts resulting from the roadway

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improvements will be 1.9 acres. Additional disturbed areas will be temporary impacts because they will be revegetated with native plants and maintained as native vegetation. Temporary construction impacts at this location are 2.51 acres.

As part of the Phase II Improvements, the CBC under I-25 will be rehabilitated to provide a Preble's habitat linkage at Jackson Creek.

Teachout Creek

Teachout Creek crosses under I-25 via the 10-foot wide by 10-foot high CBC. The highway improvements in this reach include additional lanes and shoulders, and some shoulder widening. The CBC will also be extended to the west and east.

Teachout Creek has been designated critical habitat at a distance of 361 feet out from the edge of each stream bank. The permanent impacts will include the edge of the current 15-foot-wide mowing strip next to the existing highway to the edge of this mowing strip for the new highway. In addition, the culvert extensions will result in permanent impacts to Preble's habitat. The permanent impacts to Teachout Creek will be 0.73 acre.

Additional disturbed areas will be temporary impacts because they will be revegetated with native plantings. Temporary impacts resulting from construction activities will be 1.46 acres.

Project Impact Summary

Table 1 summarizes the Phase II permanent and temporary impacts for each stream in the project area.

Table 1. Phase II Temporary and Permanent Preble's Habitat Impacts and Increases Due to Critical Habitat Designation

Habitat Site	Temporary Impacts (acres)	Permanent Impacts (acres)	Increase Due to Critical Habitat Designation (acres) and Change from 2004 BO
Pine Creek	3.3	none	N/A
Kettle Creek	0.4	0.1	N/A
Black Squirrel Creek South	2.1	1.2	N/A
Black Squirrel Creek North	3.1	1.0	N/A
Monument Branch	6.1	3.5	N/A
Smith Creek	2.2	0.3	N/A
Black Forest Tributary	1.0	0.3	N/A
Jackson Creek	2.5	1.9	Permanent Impacts to Jackson Creek total 6.59 acres when combined with the 4.65 acres from the Baptist Road project. The 2003 BO identified 7.7 acres of permanent impacts at Jackson Creek. Therefore, a total 1.11 acres of permanent impacts are left unaccounted for at Jackson Creek.
Teachout Creek	1.4	0.7	A total of 1.1 acres of permanent impacts were identified in 2003 EA. Phase II will impact 0.70 acres and leave 0.40 acres unaccounted for.
Totals	22.1	9.0	No increase

3.3 Description of Preble's Habitat Conditions in Impact Areas

The habitat conditions vary at each I-25 stream crossing that is designated as Preble's habitat. This section will describes the general condition of this habitat at each stream that is designated Preble's habitat.

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Pine Creek

The habitat being impacted at this location is poor upland habitat. This area is on the east side of I-25 and consists of bare upland areas with noxious weeds.

Kettle Creek

Upland habitat along and adjacent to I-25 is of poor quality. On the east side of the highway, the existing Preble's habitat is between I-25 and the Kettle Creek dam. Habitat on the west side of the highway extends along the roadway and consists of vegetation associated with uplands.

Black Squirrel Creek South

Riparian and upland habitat conditions being impacted are considered higher quality. The riparian vegetation being impacted in the stream channel is high quality and consists of cattail (*Typha latifolia*), sandbar willow (*Salix exigua*), and scattered cottonwood (*Populus deltoids*). Upland grassland is present along the edge of the highway.

Black Squirrel Creek North

Higher quality riparian and upland habitats will be impacted at this location. Riparian habitat primarily consists of sandbar willow with some intrusion of ponderosa pine (*Pinus ponderosa*) on the west side of the stream. Uplands consist of ponderosa pine, snowberry (*Symphoricarpos occidentalis*), and Gambel oak (*Quercus gambelli*).

Monument Branch

East of I-25, the vegetation community consists of willows with grasses. As the habitat transitions to uplands, ponderosa pine and Gambel oak are present. The west side of I-25 contains sandbar willow and cattails within the riparian vegetation zone. The highway median has a willow-lined channel; and uplands with Gambel oak and ponderosa pine.

Smith Creek

West of the I-25, the plant community consists of crack willow (*Salix fragilis*) with a sandbar willow understory. Uplands on the west side near the road primarily consist of mixed cool and warm season grasses. The highway median has crack willow with sandbar willow and cattail. The east side of I-25 has higher quality riparian vegetation consisting of crack willow and the channel consists of a thick stand of cattail.

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Black Forest Tributary

Along both sides of I-25, the vegetation community consists of poor quality grasslands. Some riparian vegetation is present around the existing CBC and consists of sandbar willow and snowberry.

Jackson Creek

The vegetation community west of I-25 has a large area of sandbar willow with some tree cover. Vegetation east of I-25 is of poor quality or non-existent because of the frontage road and the CBC. The side slopes along I-25 are poor quality grasslands with weeds.

Teachout Creek

This portion of the project area primarily consists of grassland along the roadway slopes. The culvert entrances contain some sandbar willow and taller grasses.

4.0 CONSERVATION MEASURES

The conservation measures identified in this section were identified during the 2003 programmatic BA process and also as site-specific measures developed during this BA process. As the project design is finalized, CDOT will identify additional conservation measures to avoid and minimize impacts to Preble's habitat. The designation of critical habitat within the project corridor has expanded protective buffers and increased the areas that will need to be avoided or where impacts need to be minimized.

4.1 Avoidance and Impact Minimization Measures

Avoidance

Phase II of the I-25 improvements will encroach upon Preble's habitat at nine stream locations. During development of the programmatic BA, the project biologist worked with the engineering design team to avoid Preble's habitat. The primary avoidance measure identified for this phase of the highway project was widening the highway to the inside median to avoid impacts to habitat on road edges and slopes.

Moving the roadway to non-habitat areas was considered during the conceptual design phase completed for the 2004 EA. This design alternative was considered at Pine Creek. However, it was determined this alignment would result in safety issues due to the road curvature that will reduce design speeds for this roadway. Therefore, this alternative was eliminated from consideration due to the safety concerns.

Additional opportunities to avoid habitat in critical habitat designated streams will be investigated during the project design phases and any additional avoidance measures will be documented for presentation to the USFWS.

Minimization

During the I-25 Programmatic BA/BO process, the project team identified techniques to minimize impacts to Preble's habitat that could not be avoided during the construction of the projects. The Programmatic BA Project Team used the 30 percent design plans to determine impacts that are being used for USAFA streams in this BA. This BA is also using the 2004 30 percent design plans

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to revise impacts to streams designated as critical habitat and Smith Creek at the Northgate Interchange. The impacts at Smith Creek were revised because Phase II impacts needed to be separated from impacts associated with future improvements to Powers Boulevard.

The programmatic BA stated that 30 percent design plans are not able to be used for finalizing minimization to habitat because of design changes that typically occur as plans are finalized (Ensign Technical Services 2003). Therefore, CDOT will continue to work with the design team through final design to minimize impacts to Preble's habitat.

The programmatic BA identified a cluster of Preble's inhabited streams south of the Northgate Interchange as an area that requires an extra effort to minimize impacts to the habitat (Ensign Technical Services 2003). It was determined that if project impacts were not minimized in this area it could result in significant effects to the Preble's populations in these drainages. The streams located in this area are Smith Creek, Monument Branch, and the North and South Black Squirrel Creeks. The programmatic BA determined that Preble's inhabiting these streams may move into the I-25 median and use existing habitat connections to travel from stream to stream (Ensign Technical Services 2003).

To minimize the impacts to Smith Creek, Monument Branch, and the North and South Black Squirrel Creeks during the Phase II improvements, CDOT will carry forward the following commitments identified in the programmatic BA:

To minimize the impacts to Smith Creek, Monument Branch, and the North and South Black Squirrel Creeks during the Phase II improvements, CDOT will carry forward the following commitments identified in the programmatic BA:

- One of the streams will be identified and preserved as a movement corridor. This corridor will either be left undisturbed or any disturbed areas will be restored to at least 70 percent foliar cover. Restoration of disturbed habitat will include placement of artificial cover if needed to provide cover for the movement of Preble's. Artificial cover will primarily include the placement of brush piles to create a mosaic of cover.
- No more than 50 percent of the Preble's habitat identified as impacted will be disturbed at one time during the construction and post-construction phase of the project.

Additional minimization measures that are commonly used when constructing near and in Preble's habitat will be implemented during Phase II. These minimization measures include the following:

- Highway construction taking place in designated Preble's habitat will occur during the hibernation season that is November 1 to April 30. This will minimize impacts during the Preble's active period and prevent disruption of breeding, feeding, and dispersal activities.
- High quality habitat areas such as dense willow areas and hibernation areas will be identified and impacts to these areas will be minimized during the final design phase of the project. After determining the location of these sites, these areas will be documented in the design plans.
- Native vegetation will be used in all revegetation efforts, and the site will be promptly revegetated.
- The contractor will minimize impacts to existing vegetation by cutting shrubs to ground level, allowing sprout re-growth, and by trimming trees rather than removing them. In

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addition, the contractor will limit areas where bare ground exists after clearing and grubbing. If these areas are temporary impacts, reseedling will be promptly initiated.

- Noxious weeds will be controlled in all disturbed habitat areas.
- Construction of minor drainage culverts and other roadway appurtenances will be done from the roadway where practical to limit disturbance.
- Maximum slope grades will be used to reduce impacting habitat on toe slopes. This will include the use of guardrail when appropriate.
- If box culvert work is required, existing culverts will be lengthened when possible rather than replaced to reduce impacts to habitat.
- Wing walls will be used on culverts and bridges to reduce impacts from toe slopes.
- Erosion and sediment will be controlled by the use of silt fencing and sediment basins.
- Any proposed clearing within hibernation habitat will be mitigated by clearing shrubs and woody vegetation prior to August 15 to discourage mice from hibernating in these areas prior to construction.
- Construction access in Preble's habitat will be confined to areas identified as impact areas.
- No construction staging areas will be allowed in Preble's habitat.
- Mowing along the new highway will be limited to one mower width (i.e., 15 feet) in most cases, and the remainder of the toe slopes will not be cut. The mowing boundary will be marked with signs to ensure CDOT maintenance crews do not cut beyond this boundary. All mowing operations will adhere to the Memorandum of Understanding between CDOT and USFWS.
- Preble's habitat adjacent to construction zones will be fenced with blaze orange or highly visible fencing to prevent construction equipment and other disturbances from occurring in these areas.

As the design process proceeds and plans are being finalized, CDOT environmental staff will continue to review the design drawings to ensure habitat impacts not documented in this BA are identified and modifications to the design are developed to avoid the impacts. Ideally, as the design process proceeds and if additional impacts to Preble's habitat are identified, the best solution will be to avoid the impacts because it would require an amendment to this BA. However, should an additional impact be identified as unavoidable, CDOT environmental staff would work closely with the engineers to minimize the impact. If an unavoidable impact to Preble's habitat is identified, CDOT would also immediately contact USFWS to determine the next steps in the process.

Additional Conservation Measures

The I-25 Programmatic BA/BO identified mitigation commitments that would be required for the projects identified in the 2004 I-25 EA. As stated earlier, despite the cancellation of the I-25 Programmatic BA/BO, CDOT will continue to develop the mitigation that was approved by the USFWS in the programmatic process. This continued development of the mitigation is also the direction the USFWS has indicated they would like to pursue for the remaining I-25 projects. The I-25 Programmatic BA/BO stipulated the following mitigation strategies:

- Restore, enhance, and create Preble's habitat, including 50 additional acres of habitat.
- Monitor to assure disturbance areas are not exceeded and to gauge restoration efforts.
- Restore habitat linkages.
- Sponsor a research project to determine the effectiveness of ledges for small mammals in culverts.

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Since the implementation of the I-25 Programmatic BA/BO mitigation in 2003, CDOT has acquired 30.89 acres of the 50 acres needed to satisfy the preservation requirements. To date, the following properties have been purchased to satisfy the I-25 BO preservation requirements:

- Etter Property – 3.189 acres-Located on Dirty Woman Creek
- Homes Property – 3.022 acres-Located on Dirty Woman Creek
- McFarlane Property – 3.273 acres – Located on Dirty Woman Creek
- Shuck Property – 14.76 acres – Located on Jackson Creek
- Brookmoor Property – 6.65 acres – Located on Dirty Woman Creek

All of the preservation properties purchased to date are located on drainages that are designated critical habitat.

A yearly monitoring program of disturbed areas has been implemented to ensure the habitat restoration is working and if not, making adjustments in the mitigation to ensure success.

The designation of critical habitat has not increased the area of permanent impacts identified in the 2003 BO. The reason the impacts have not increased on critical habitat designated streams is based on a detailed quantitative assessment of project impacts at these stream locations. Two critical habitat streams, Jackson Creek and Teachout Creek, had permanent impacts lower than those identified in the 2003 I-25 EA. At Jackson Creek, a total of 6.59 acres of permanent impacts were identified from the combination of the Phase II improvements and the completed Baptist Road Project. This is 1.11 acres fewer than the 7.7 acres identified in the 2003 I-25 BO. Permanent impacts at Teachout Creek were 0.70 acre from Phase II improvements, which is 0.40 acre less than the 1.1 acres of permanent impacts identified in the 2003 I-25 BO. Based on these updated decreases in permanent impacts identified in the 2003 BO, additional preservation acreage is not required to meet the goal established for preservation in the I-25 Programmatic BA/BO.

Habitat Linkage

The programmatic BA/BO identified five potential habitat linkages that could be considered for restoration. The BO required the restoration of two of these linkages identified in the BA. To fulfill this commitment, the I-25 Phase II Improvements will restore one linkage at Kettle Creek and the second at Jackson Creek.

A habitat linkage will be constructed at Kettle Creek to allow for movement of Preble's under I-25. This structure will be located just north of the Briargate Interchange. The figure that shows the design of this structure is located in Appendix B. The 365-feet long, 6-feet by 4-feet culvert will be installed on the north end of the Kettle Creek Dam that is located on the east side of I-25.

This culvert concept was identified in the I-25 BA/BO because a Preble's was observed near the site. The Kettle Creek Dam east of I-25 acts a barrier for Preble's movement along Kettle Creek and restricts their movement under I-25. Placement of the culvert on the north end of the dam was chosen because the grades are gentler and vegetation was established.

To ensure Preble's select the culvert for travel along Kettle Creek, brush piles will be placed to link Preble's habitat with the culvert. Additional shrubs may also be planted and this will be discussed with USAFA, which owns the property outside the CDOT easement. Ensuring the success of this

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proposed linkage will require close cooperation with USAFA so the habitat on the east and west side of I-25 can be maintained as suitable for use by Preble's.

Restoration of the habitat linkage at Jackson Creek will include the rehabilitation of the concrete box culvert (CBC) under I-25 to allow downstream movement of Preble's that occupy the CDOT mitigation site and other suitable habitat. The CBC will have a natural bottom installed and the habitat at the entrances will be improved to encourage use of the structure. It is expected that this CBC upgrade will improve Preble's movement under I-25. In addition to the CBC upgrade, the culvert located at the Frontage Road next to Jackson Creek will also be replaced to improve the mobility of Preble's at this location.

4.2 Monitoring

Monitoring of temporarily disturbed Preble's habitat and the success of the two habitat linkages will follow the requirements and conditions outlined for completed I-25 projects in the Monument Creek Watershed.

Monitoring requirements for all temporarily disturbed Preble's habitat and will include the following for impacts to riparian and upland grasslands:

- Reporting on the revegetation status of all temporarily disturbed Preble's habitat.
- Monitoring of noxious weeds in all revegetation sites.
- Monitoring of erosion at all habitat areas.

Monitoring requirements for the habitat linkages at Kettle and Jackson Creeks linkages include the following:

- Monitoring of habitat work at the Kettle and Jackson Creeks linkages.
- Preble's population monitoring at the Kettle and Jackson Creeks linkages.

Evaluating the success of the revegetation efforts for temporarily disturbed habitat areas will follow the guidelines used for the Monument Interchange Project. Revegetation of temporarily disturbed habitat areas at the Monument Interchange was successful after only two growing seasons (CDOT 2011). Therefore, Phase II will use the following criteria to measure the success of the revegetation of temporarily disturbed Preble's habitat:

- Upland and wetland foliar cover will be at least 70 percent as measured by the line-intercept method.
- Temporarily disturbed riparian shrubs shall be closely monitored to ensure that they recover from construction disturbance. Shrubs will be replaced if they do not equal the pre-construction density of shrubs.
- Willow cuttings placed in appropriate riparian areas shall be monitored for survival and foliar cover must be at least 80 percent as measured by the line intercept method.
- If containerized shrubs are planted they will be monitored and if they do not survive will be replaced.
- Wetland seedling foliar cover must be at least 70 percent as measured by the line-intercept method.

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- Preble's populations will be monitored for three years following project construction. CDOT proposes to monitor the Kettle and Jackson Creek linkages to determine the Preble's use of these sites. This monitoring will be completed through the use of a yearly trapping program.

The vegetation monitoring success criteria will also be used to measure the success of habitat enhancement at the Kettle and Jackson Creeks linkages.

5.0 GUNNISON'S PRAIRIE DOG

In February 2008, the USFWS listed the Gunnison's prairie dog as a candidate species under the Endangered Species Act. Populations of this species occurring in El Paso County are covered under this designation. Seven colonies of Gunnison's prairie dog occur within the proposed project area. **Figures 2 and 3** show the location and acreage of the colonies. **Table 2** identifies the colonies and the acreage of each colony in the project area.

Table 2 Gunnison's Prairie Dog Colonies in the Project Area

Colony	Area Occupied (Acres)
Colony 1 (Located at Northgate interchange)	3.36
Colony 2 (Located at Northgate interchange)	1.6
Colony 3 (Located at Northgate interchange)	1.8
Colony 4 (Located on east side of I-25 and north of Northgate interchange)	0.98
Colony 5 (Located on east side of I-25 and north of the Northgate interchange)	0.62
Colony 6 (Located on west side of I-25 south of SH 105)	6.0
Colony 7 (Located adjacent to Colony 6 on the west side of I-25)	1.0

The population of Gunnison's prairie dog has expanded since the 2004 I-25 EA has been completed. Colonies of Gunnison's prairie dog have expanded at the Northgate Interchange and also now occur on the east and west side of I-25 north of the interchange.

Gunnison's prairie dog colonies present within the project area represents the northeastern extent of the species range in Colorado (Seglund 2010). This population of Gunnison's prairie dog is considered the montane range area for the species. Within the montane range, Gunnison's prairie dog colonies are typically small and restricted by the extent of open range and parks favored by the species. Recent Colorado Division of Wildlife studies suggest Gunnison's prairie dog colonies have been in decline in Colorado (Seglund 2010).

A recent study completed by the Colorado Division of Wildlife concludes that the greatest threats to the Gunnison prairie dog are poisoning on private lands and periodic bouts of sylvatic plague within colonies (Seglund 2010). The Colorado Division of Wildlife acknowledged that a regular plague cycle occurs in prairie dog colonies and has the greatest impact on local populations (Ecke and

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Figure 2
Gunnison Prairie
Dog Colony
Locations

1,000 Feet
500
250
0
1:3,600
1 inch = 300 feet



WILSON
& COMPANY
ENGINEERS & ARCHITECTS

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0 250 500 1,000 Feet

1:3,600

1 inch = 300 feet

Figure 3
**Gunnison Prairie
Dog Colony
Locations**



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Johnson 1952). The montane range of the species is characterized by smaller colonies that are susceptible to periodic episodes of plague that can reduce populations to levels that often do not recover to pre-plague populations. Therefore, Gunnison's prairie dog is impacted more by plague than black-tailed and white-tailed prairie dogs that have larger colonies that can recover more easily after plague. The small colony structure of the species and the susceptibility of the species to plague are the primary reasons the USFWS listed Gunnison's prairie dog as a Candidate species under the Endangered Species Act.

5.1 Impacts to Gunnison's Prairie Dog

Project impacts to the Gunnison's prairie dog will occur at six of the seven colonies in the Project Area. The impacts to the colonies will result from the road widening and the increase in road surface. Table 3 identifies the impacts from Phase II improvements to Gunnison's prairie dog colonies.

Table 3. Phase II Impacts to Gunnison's Prairie Dog Colonies

Colony	Acreage Impacted
Colony 1	1.0
Colony 2	0.21
Colony 3	0.67
Colony 4	0.0
Colony 5	0.26
Colony 6	0.28
Colony 7	1.0

The Phase II impacts to these colonies represent large areas of the small isolated colonies present in the Project Area. Therefore, a range of mitigation options are presented in this BA for use in an adaptive management approach to mitigating impacts to the Gunnison's prairie dog.

5.2 Gunnison's Prairie Dog Conservation Measures

Impacts to Gunnison's prairie dog will avoided and minimized during the design process. Permanent impacts to the Gunnison's prairie dog will result in the removal of individual animals before construction is started. The guidelines for the removal of the Gunnison's prairie dog will follow the *2009 CDOT Impacted Black-tailed Prairie Dog Policy*. A copy of this policy is located in Appendix D.

Early meetings with the USAFA discussed the possibility of relocating the Gunnison's prairie dogs at the Northgate Interchange to a suitable site on the United States Air Force Academy. Dr. Brian Mihlbachler, a USFWS biologist based at USAFA, has indicated the USAFA would be open to relocating the prairie dogs from the Northgate Interchange to any of the other active colonies on USAFA property where relocation doesn't conflict with USAFA missions. Correspondence documenting the USAFA decision to allow relocation of the prairie dogs is provided in Appendix C.

Based on conversations with Dr. Mihlbachler, the Northgate Interchange Colonies 1, 2, and 3 has approximately 20 individuals. It is the intent of CDOT to use passive relocation to mitigate impacts

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to Gunnison's prairie dog during the Phase II improvements. However, if passive relocation can't be used successfully to mitigate the impacts, trapping and relocation will be implemented.

This BA outlines a mitigation plan that will include an adaptive management approach that would allow for passive relocation at the Northgate Interchange and if USAFA policy changes does not allow for relocation, the option of trapping and euthanizing with donation to a raptor center will be available. This approach would follow the guidelines outlined in the 2009 CDOT Black-tailed Prairie Dog policy (CDOT 2009). The mitigation followed at the Northgate Interchange will also be applied to any impacts at Gunnison's prairie dog colonies located on the east and west side of I-25 (just north of the Northgate Interchange).

The following adaptive management approach will be implemented to mitigate the impacts to the Gunnison's prairie dog colonies present within the Phase II I-25 Project Area when impacts can't be avoided. They are listed in the order of priority for the Phase II Project.

Passive Relocation: Passive relocation of the Gunnison's prairie dogs at the Northgate Interchange will be the preferred mitigation for the Phase II improvements. Passive relocation is the preferred mitigation because it increases survivorship of individuals over trapping and relocation, and is a simpler and less costly means to mitigate project impacts to Gunnison's prairie dog. The use of passive relocation could occur if temporary or permanent construction impacts would occur within the colony. This methodology was developed by CDOT and has been used successfully for other highway improvement projects.

The following passive relocation protocol will be implemented if limited construction impacts occur within Gunnison's prairie dog colonies such that a sizable colony adjacent to the project area remains intact and large enough to accommodate the "relocated" prairie dogs:

- a. Under the supervision of CDOT environmental staff or a qualified consultant, the construction contractor will install a silt fence perpendicular to the prairie dog colony and the area of temporary construction work/access. This fence will extend across the entire prairie dog colony and work zone. The silt fence will be trenched in to a depth of at least 6 inches so that no light will show from the bottom edge. The construction zone will be enclosed so no prairie dogs can access the work zone from above ground.
- b. After the completion of Task A, the construction contractor shall grade the entrances to the prairie dog burrows within the construction work zone to a depth of no greater than six inches. This action will also be monitored by CDOT or the consultant.
- c. The construction contractor will not be allowed to commence construction activities within the construction zone until 24 hours after the burrows have been graded. If there are any signs of prairie dogs digging out through the closed burrows within 4 hours of the initial closure, the prairie dog shall be captured and placed outside the silt fence. An environmental compliance manager and/or CDOT will monitor the enclosure during the 24-hour period to ensure no prairie dog activity is occurring within the enclosure.

If passive relocation is approved for this project, any changes to this protocol must be approved by CDOT.

Trap and Transfer: Trap and transfer of the Gunnison's prairie dog at the Northgate Interchange has been approved by USAFA. The prairie dogs could be transferred to an existing colony located

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on the USAFA if passive relocation is not determined to be a viable option. The following protocol will be implemented for the trapping and transfer of the Gunnison's prairie dogs located at the Northgate Interchange:

- All trapping will be started in late February and be completed by the middle of March. Trapping can also be completed after July.
- No sick or injured prairie dogs will be relocated. These individuals will be humanely euthanized on-site.
- A trap and transfer management plan will be prepared by CDOT before trapping is initiated. This plan will be reviewed by the USAFA.
- Coordinate relocation efforts with Colorado Parks and Wildlife.

Trap and Euthanize: If the USAFA will not accept all of the prairie dogs at Northgate or they change their management of the species, CDOT will follow the guidelines outlined in the *2009 CDOT Impacted Black-tailed Prairie Dog Policy Guidelines* that stipulate trapping and euthanizing the individuals for donation to a raptor rehabilitation center (CDOT 2009).

Donation of the prairie dogs to a raptor rehabilitation center requires the humane treatment of animals during trapping, no pre-dusting of burrows with herbicides or insecticides, and freezing the animal carcass for 14 days prior to donation.

The following protocol will be followed if trapping and euthanizing are required for the management of Gunnison's prairie dogs in the project area:

- Prior to trapping all human activity will be curtailed in the colonies to increase capture rates.
- Non-target species such as rabbits and birds will be released unharmed. If possible, other mammals such as rabbits will be relocated to a suitable site near the project area that will not be developed.
- CDOT will prepare a management plan for a trapping and euthanizing program.

Trapping and euthanizing will only be used if either relocation option is not available to CDOT.

6.0 EVALUATION OF OTHER CANDIDATE, THREATENED, AND ENDANGERED SPECIES LISTED IN EL PASO COUNTY

A review of federal listed candidate, threatened, and endangered species in El Paso County did not identify the potential presence of listed wildlife or plant species, other than Preble's and the Gunnison's prairie dog, within the project area. **Table 4** reviews the other federally listed wildlife and plant species in El Paso County and provides an overview of their habitat requirements and the reason they are not being addressed in this BA.

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Table 4. Evaluation of Other Candidate, Threatened, and Endangered Species in El Paso County

Species	Designation	Potential Effect to Species in Project Area
Mexican Spotted Owl (<i>Strix occidentalis lucida</i>)	Threatened	No Effect. The south half the Air Force Academy contains some mixed conifer habitat used by the species. However, the conifer density and noise associated with I-25 makes it highly unlikely that Mexican spotted owls would be regular visitor to the project area.
Greenback cutthroat trout (<i>Oncorhynchus clarki spp. Stomia</i>)	Threatened	No Effect. The project area does not contain the coldwater streams required by this trout species.
Pawnee montane skipper (<i>Hesperia leonardus diluvialis</i>)	Threatened	No Effect. This butterfly is only found in the South Platte River Basin in montane habitats.
Ute ladies'-tresses orchid (<i>Spiranthes diluvialis</i>)	Threatened	No Effect. The floodplains present in the project area do not contain the type of habitat preferred by this plant. No known populations have been identified in the project area.
North American wolverine (<i>Gulo gulo luscus</i>)	Candidate	No Effect. No coniferous alpine forests used by the wolverine occur within the project area.

7.0 SUMMARY

The I-25 Phase II Improvements Project will affect Preble's habitat and populations in El Paso County, Colorado. Total Phase II impacts include 9.0 acres of permanent and 22.1 acres of temporary disturbance. Since the 2003 BA/BO was approved by the USFWS, critical habitat was designated in El Paso County and this has minimally increased impacts to Preble's and their habitat. The 2003 BA/BO is no longer valid because of the critical habitat designation, but CDOT will continue to pursue and finalize the mitigation commitments approved in the 2003 BO since these prior commitments are in various stages of completion.

This BA used the permanent and temporary impacts occurring on USAFA lands identified in the 2003 BA/BO because they were exempt from the 2010 critical habitat designation. However, impacts were updated for the streams designated as critical habitat, outside of USAFA's boundaries.

On-site mitigation for the project will consist of restoration of disturbed habitat and an ongoing monitoring program that tracks the progress of the restoration projects.

Off-site mitigation development continues for the projects identified in the 2003 I-25 EA. To date, CDOT has acquired and preserved 30.89 acres of the 50 acres of Preble's habitat. In addition, this project will construct and monitor the Kettle and Jackson Creeks habitat linkages that were identified in the 2003 BA.

No increase in the acres of impacted Preble's habitat identified in the 2003 BA/BO resulted from the critical habitat designation. Therefore, the mitigation that was identified and is being developed

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for the I-25 projects will be sufficient based on the 2003 BA/BO. As the Phase II design process proceeds to the final plans, CDOT will continue to look for areas to minimize impacts to Preble's habitat in the corridor.

Gunnison's prairie dog colonies in the project area have expanded over the years since the 2003 I-25 EA. Colonies located at the Northgate Interchange have expanded slightly to the east, but further expansion will be limited due to the fragmented habitat available. Additional colonies have been mapped along I-25 north of the Northgate interchange as part of this BA process. To manage I-25 Phase II improvement impacts to the Gunnison's prairie dog, CDOT will follow the guidelines in the 2009 *CDOT Impacted Black-tailed Prairie Dog Guidelines*.

The preferred method of mitigating impacts to the Gunnison's prairie dog is passive relocation. However, if passive relocation can't be successfully implemented, the USAFA has approved the relocation of Gunnison's prairie dogs currently occupying the Northgate Interchange to an existing colony on their property. This relocation process would follow the 2009 CDOT guidelines for impacted black-tailed prairie dogs. The colonies along I-25 north of Northgate will also be impacted by the Phase II improvements. At these locations, passive relocation will be implemented for mitigation to move the individual prairie dogs away from the road construction zone.

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REFERENCES

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George, Russ. 2009. Impacted Black-tailed Prairie Dog Policy. Memo to CDOT Regional Environmental Managers and Regional Transportation Directors.

Seglund, A.E. and P.M. Schnurr. 2010. Colorado Gunnison's and White-tailed Prairie Dog Conservation Strategy. Colorado Division of Wildlife.

Shenk, T. 1998. Conservation Assessment and Preliminary Conservation Strategy for Preble's meadow jumping mouse (*Zapus hudsonius preblei*). Fort Collins (CO): Colorado Division of Wildlife.

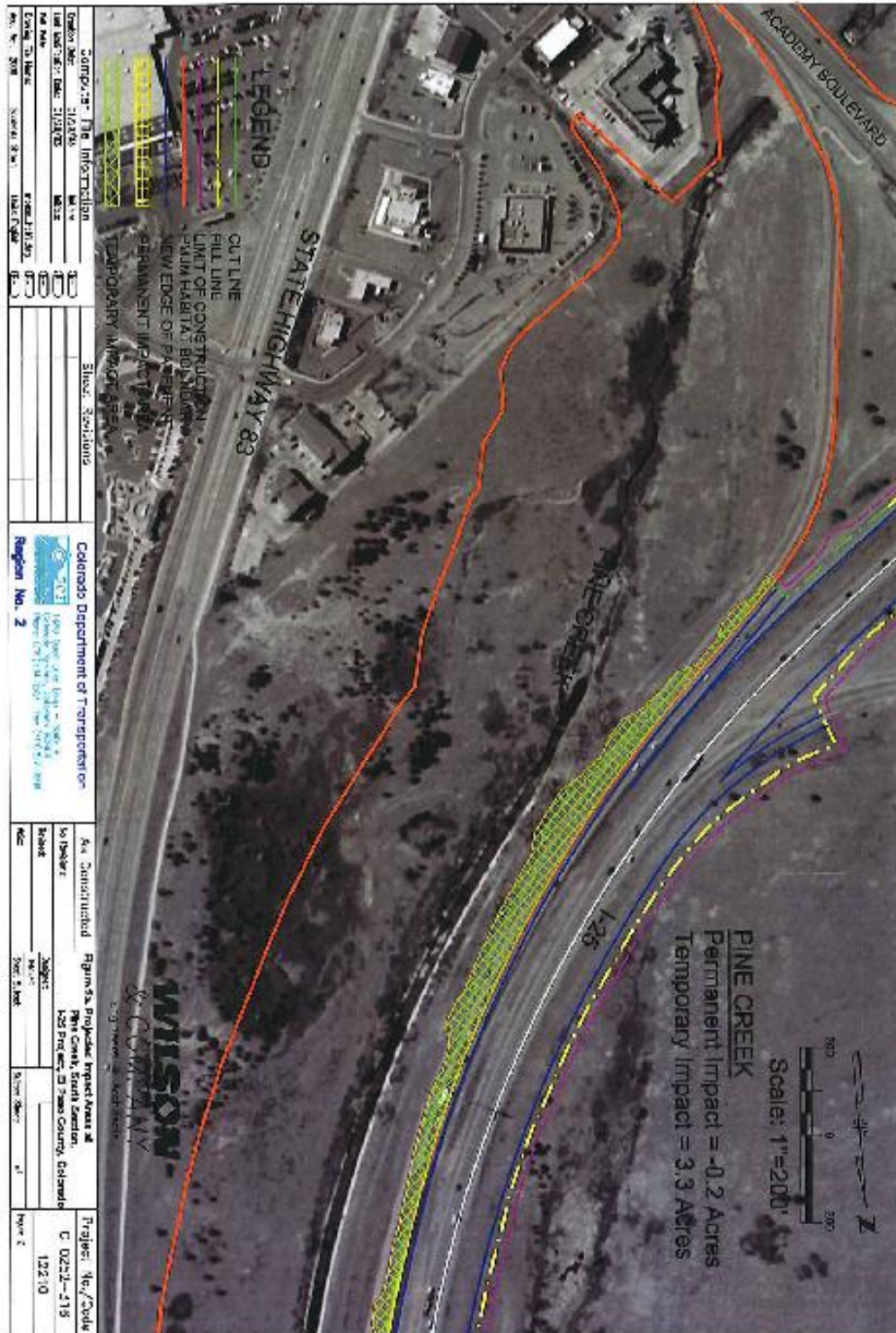
United States Fish and Wildlife Service. 2010. December 15, 2010 Designated Critical Habitat Notice in the Federal Register at Volume 75, No. 240, pages 78340 to 78483.

Appendix A Stream Habitat Impact Figures

The figures that follow are presented in order from south to north, which is consistent with the USFWS Designated Critical Habitat listing, CDOT's I-25 mile marker numbering and survey stationing information from the 2004 I-25 EA Concept Design.

Habitat Site	Comment
Pine Creek	Unchanged from previous BA – no design change, no critical habitat affected
Kettle Creek	Unchanged from previous BA – no design change, no critical habitat affected
Black Squirrel Creek South	Unchanged from previous BA – no design change, no critical habitat affected
Black Squirrel Creek North	Unchanged from previous BA – no design change, no critical habitat affected
Monument Branch	Unchanged from previous BA – no design change, no critical habitat affected
Smith Creek	Displays only impacts from I-25 widening, not future interchange modification
Black Forest Tributary	Unchanged from previous BA – no design change, no critical habitat affected
Jackson Creek	Displays only impacts from I-25 widening, not completed interchange project; Newly designated critical habitat differs from that assumed in earlier BA.
Teachout Creek	Newly designated critical habitat differs from that assumed in earlier BA.

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Legend:

- Cutline
- Right of Way
- Wetland
- Proposed Oververt

Map Labels:

- BRIARCLIFF
- BOULEVARD
- KETTLE CREEK
- KETTLE CREEK DAM
- PROPOSED OVERVERT TO LINK HABITAT
- WILSON & COMPANY

Scale: 1" = 100'

Project Information:

Project No. 12210	Project No. 12210
Project Name: Kettle Creek Dam and Oververt	Project Name: Kettle Creek Dam and Oververt
Project Location: Kettle Creek, Wilson & Company	Project Location: Kettle Creek, Wilson & Company
Project Status: In Progress	Project Status: In Progress

MONUMENT BRANCH TOTAL
TOTAL PERMANENT = 25 ACRES
TOTAL TEMPORARY = 51 ACRES

Projected Impact Areas
Black Squirrel Creek North and Monument Branch
L-25 Project, El Paso County, Colorado
FIGURE 5

LEGEND

- New Bridge Construction
- New Perimeter Construction
- RD's Perimeter Boundary
- Western Boundary
- 200' Center Right-of-Way Boundary
- Perimeter PM (Below Impact)
- Temporary PM (Below Impact)
- Perimeter PM (Above Impact)
- Temporary PM (Above Impact)
- Top of Cut
- Top of Fill

BLACK SQUIRREL CREEK NORTH TOTAL
TOTAL PERMANENT = 10 ACRES
TOTAL TEMPORARY = 21 ACRES

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[illegible]

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Appendix B Kettle Creek Habitat Linkage

As mitigation for the I-25 widening project, CDOT will implement two of the habitat linkages that were identified and discussed in the 2003 Programmatic Biological Assessment. Documentation regarding the Kettle Creek Habitat Linkage is provided on the following pages.

[illegible]

Appendix C

E-Mail regarding Gunnison's Prairie Dog Relocation

E-mail regarding proposed relocation of impacted Gunnison's prairie dogs on US Air Force Academy property is provided on the following pages.

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Belford, Robert W.

From: Frei, Robert [Robert.Frei@DOT.STATE.CO.US]
Sent: Thursday, May 17, 2012 4:09 PM
To: Belford, Robert W.
Subject: RE: CDOT I-25 Expansion and Prairie Dogs

Yes. However, I would include the other options including live capture and donating the GPDs to the ferret program in case there is a change.

-----Original Message-----

From: Belford, Robert W. [mailto:Robert.Belford@wilsonco.com]
Sent: Thursday, May 17, 2012 4:07 PM
To: Frei, Robert
Subject: RE: CDOT I-25 Expansion and Prairie Dogs

Rob:

That is good news. Do you want to make this action part of the BA?

Thanks,
Robert

-----Original Message-----

From: Frei, Robert [mailto:Robert.Frei@DOT.STATE.CO.US]
Sent: Thursday, May 17, 2012 3:47 PM
To: Belford, Robert W.
Subject: FW: CDOT I-25 Expansion and Prairie Dogs

Looks like we can move GPDs to other active colonies on USAFA base.

-----Original Message-----

From: MIHLBACHLER, BRIAN S CIV USAF USAFA 10 CES/CEAN [mailto:brian.mihlbachler@us.af.mil]
Sent: Thursday, May 17, 2012 11:30 AM
To: Frei, Robert
Cc: Hunt, Daniel; Walter, Alexandra; Cosyleon, Gabriel; Michael, Alison Deans; Peterson, Jeff; Eberhart, Douglas P. (Douglas.Eberhart@wilsonco.com); Hurwitz, Sabrina
Subject: FW: CDOT I-25 Expansion and Prairie Dogs

Robert - I have been advised that no coordination with the Air Force Academy Command would be necessary for CDOT to trap and relocate the prairie dogs from the Northgate interchange to our other active sites on base. This would certainly be our preferred option.

Brian S. Mhlbachler, PhD
U.S. Fish and Wildlife Service
Natural Resources Manager
10CES/CEAN
8120 Edgerton Drive, Suite 40
USAF Academy, CO 80840-2400
(719) 333-3308
(719) 351-3730 cell

-----Original Message-----

From: MIHLBACHLER, BRIAN S CIV USAF USAFA 10 CES/CEAN
Sent: Tuesday, May 15, 2012 2:07 PM
To: LONG, GREGORY P CIV USAF USAFA 10 CES/CEA
Cc: MARNE, PHILIP C GS-12 USAF USAFA 10 CES/CEAN; DAVIS, COURTNEY A GS-11 USAF USAFA 306 OSS/OSAA; 'Hurwitz, Sabrina'
Subject: CDOT I-25 Expansion and Prairie Dogs

Greg - The Colorado Department of Transportation (CDOT) is revising their Biological Assessment of the expansion of I-25 between Academy Drive and Baptist Road, to include a new look at impacts and mitigation for Gunnison prairie dogs and the Preble's meadow

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jumping mouse. I met with a CDOT engineer and environmental staff this morning to discuss these topics and also potential stream restoration assistance on Kettle Creek and Monument Branch. As CDOT refines their plans, I have recommended they send the BCE a letter outlining their actions and interest in partnering/coordinating on any mitigation. One question that has come up is what to do with the prairie dogs residing in the Northgate interchange, which is our largest population (approx. 20 dogs). As a candidate species for Endangered Species Act protection, and per DoD guidance, we should promote prairie dog conservation on USAFA. CDOT is also interested in conserving the population through passive relocation (basically trying to encourage them to move outside the construction zone or fencing them out of the construction area) or live trapping and relocation; euthanizing the animals would be a last resort. Other than the Northgate population, we currently have two other active dog colonies (northeast corner near Black Forest Creek and at the intersection of Parade Loop/Northgate) (see map). So, if trapping and relocation becomes the preferred conservation method, would we need Command approval to move animals to the other active sites? I don't believe supplementing the other populations will increase the BASH or public health risk, but I'm not sure what all the sensitivities are on USAFA concerning prairie dogs. The future Powers Boulevard extension will actually have a larger impact on the Northgate prairie dogs than the I-25 expansion, but we need to be thinking ahead.

Courtney - What do you think about having prairie dogs at these locations (see map) from a BASH perspective?

Brian S. Muhlbachler, PhD
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Appendix D

CDOT 2009 Black-tailed Prairie Dog Policy

CDOT's Impacted Black-Tailed Prairie Dog Policy is specified in a memorandum dated January 15, 2009 from Executive Director Russell George to CDOT's Regional Transportation Directors (RTDs) and Region Planning and Environmental Managers (RPEMs). That memorandum is provided on the following pages.

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MEMORANDUM

DEPARTMENT OF TRANSPORTATION

Russell George
Executive Director
4201 E. Arkansas Avenue, Room 262
Denver, CO 80222
(303) 757-9201



DATE: January 15, 2009

TO: RTDs & RPEMs

FROM: Russell George, Executive Director

SUBJECT: IMPACTED BLACK-TAILED PRAIRIE DOG POLICY

On December 3, 2008 the RTDs reviewed and approved a change to CDOT's prairie dog policy. The change eliminated the requirement to notify and receive approval from the Food and Drug Administration (FDA) prior to relocating prairie dogs. Since FDA no longer requires such a notification, the policy has been amended to reflect the change. All other provisions of the policy remain unchanged.

Over the winter of 2004-2005 the Chief Engineer, RPEMs, and RTDs agreed upon the following policy for addressing Black-tailed prairie dogs that will be impacted by CDOT projects. These guidelines should be applied to all CDOT activities that affect Black-tailed prairie dogs.

- 1) CDOT projects will be designed and constructed to avoid and minimize impacts to prairie dog colonies greater than two acres in area;
- 2) If a colony is less than two acres, but has the potential to expand into areas that are currently inactive (i.e., not constrained), the available and accessible habitat will be the determining size of the area to be considered;
- 3) In order to foster a heightened sense of CDOT's ecological stewardship by the public, projects involving towns less than two acres in area, will be designed and constructed to avoid and minimize impacts, which may include the relocation of prairie dogs, so long as doing so will not increase the impacts to other resources (e.g. wetlands, historical properties, environmental justice issues, archeological sites, etc.) and is not cost prohibitive;
- 4) The area of prairie dog towns that will be affected by a project will be calculated before construction begins;
- 5) Relocation efforts for prairie dog town greater than two acres shall be conducted in accordance with CRS 35-7-203, as well as any other applicable laws or regulations;

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- 6) If a relocation site cannot be located for towns larger than two acres, the prairie dogs will be captured and donated to raptor rehabilitation facilities, or turned over to the FWS for the black-footed ferret reintroduction program;
- 7) At no time will CDOT authorize earth-moving activities that result in the burying of living prairie dogs. If needed, humane techniques for the killing of prairie dogs within a town < 2 acres in size, will be obtained from CDOW;
- 8) Coordination with the Colorado Division of Wildlife's District Wildlife Manager whose area the project is in, will be initiated before any manipulation of prairie dogs or their colonies begins;

The matrix below outlines the steps and the order they are to be taken based on the preconstruction area of an affected prairie dog town.

Preconstruction area of available prairie dog habitat ¹		
	greater than 2 acres	less than two acres
1 st	Avoid and minimize impacts	Avoid and minimize impacts
2 nd	Relocate	Donate to ferret program and/or raptor rehab program
3 rd	Donate to ferret program and/or raptor rehab program	Humanely euthanize ²
4 th	Humanely euthanize ²	-----

1. Area of land able to be used by prairie dog that may or may not be occupied; calculated before a project begins.
2. Aluminum phosphate capsules, carbon monoxide gas cartridges or carbon dioxide gas cartridges are currently recommended, but not the exclusion of any future technologies that may be developed.

Background

On February 4, 2000 the United States Fish and Wildlife Service (USFWS) classified the black-tailed prairie dog as a candidate species for protection under the Endangered Species Act. In October of that same year the State of Colorado designated the black-tailed prairie dog a Species of Concern.

On January 8, 2002 CDOT Executive Director Tom Norton signed a memo outlining guidelines for the relocation of black-tailed prairie dogs impacted by CDOT activities. Subsequently, the USFWS has removed the black-tailed prairie dog from the federal candidate species list. However, the State of Colorado has retained it on their list of species of concern.

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It is important that CDOT adopt a statewide strategy that will assist in diminishing the negative effects that transportation related activities have on the continued survival and recovery of the species. Adopting a pro-active departmental policy under the authority of CDOT may help minimize the possibility of federal listing of the black-tailed prairie dog in the future and is consistent with State and Transportation Commission policy direction.

Policy Basis

The Transportation Commission has adopted policy statements and policy statements and policy guidance in the 2020 Statewide Transportation Plan adopted November 2000, that direct CDOT activities. These include:

"Statewide Transportation Policy on the Environment:

CDOT will promote a transportation system that is environmentally responsible and encourages preservation of the natural and enhancement of the created environment for current and future generations. We will incorporate social, economic, and environmental concerns into the planning design, construction, maintenance and operations of the states existing and future transportation system. With the active participation of the general public, federal, state and local agencies, we will objectively consider all reasonable alternatives to avoid or minimize adverse impacts."

and:

"Environmental Policy Guidance:

The Transportation Commission supports pro-active techniques to mitigate impacts of the transportation system on the environment by developing creative strategies that:

- Comprehensively address anticipated environmental impacts of the state transportation system.
- Consider project enhancements in affected communities in a cost effective manner consistent with the mission of the Department; and
- Expedite project development."

This policy memo will be included in to the NEPA Guidance Manual. You can find the Manual at: <http://www.dot.state.co.us/environmental/Manual/NepaManual.asp>; the memo will be in Chapter 9, Section 9.8.